

United States Department of Agriculture
Animal and Plant Health Inspection Service
4700 River Road
Riverdale, MD 20737

Permit to Receive Soil
Regulated by 7 CFR 330

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PERMITTEE NAME:	Prof. Beth Shapiro	PERMIT NUMBER:	P330-18-00206
COMPANY:	University of California, Santa Cruz	APPLICATION NUMBER:	P525-180607-008
RECEIVING ADDRESS:	1156 High Street Thimann Receiving/ EEBio/ Biomed/155 Santa Cruz, CA 95064	DATE ISSUED:	08/05/2018
MAILING ADDRESS:	1156 High Street Thimann Receiving/ EEBio/Thim/137 Santa Cruz, CA 95064		
PHONE:	(831) 459-3003		
FAX:		EXPIRES:	06/29/2021

PORTS OF ARRIVAL/PLANT INSPECTION STATIONS: AK, Anchorage; AL, Huntsville; AL, Mobile; AZ, Douglas; AZ, Lukeville; AZ, Naco; AZ, Nogales; AZ, Phoenix; AZ, San Luis; AZ, Tucson; CA, Calexico; CA, El Segundo; CA, Fresno; CA, Long Beach; CA, Oakland; CA, Ontario; CA, Otay Mesa; CA, Port Hueneme; CA, Sacramento; CA, San Diego; CA, San Francisco; CA, San Jose; CA, San Ysidro; CA, Tecate; CO, Denver; CT, Hartford; CT, New Haven; DE, Dover; DE, Wilmington; FL, Ft. Lauderdale; FL, Ft. Myers; FL, Ft. Pierce; FL, Jacksonville; FL, Key West; FL, Miami; FL, Miami (Cargo, DHL, Fed Ex, UPS, etc.); FL, Orlando; FL, Pensacola; FL, Port Canaveral; FL, Port Everglades; FL, Sanford; FL, Tampa; FL, West Palm Beach; GA, Atlanta; GA, Savannah; GU, Agana; HI, Hilo; HI, Honolulu; HI, Kahului; HI, Kailua-Kona; HI, Lihue; ID, Eastport; IL, Chicago; IN, Indianapolis; KY, Louisville; MA, South Boston; MD, Baltimore; MD, Beltsville; ME, Bangor; ME, Calais; ME, Houlton; ME, Portland; MI, Detroit; MI, Port Huron; MI, Romulus; MI, Sault Saint Marie; MN, Duluth; MN, Grand Portage; MN, International Falls; MN, Minneapolis; MO, Kansas City; MO, St. Louis; MP, Commonwealth of the Northern Mariana Islands; MS, Gulfport; MS, Port Bienville; MT, Raymond; MT, Roosville; MT, Sweetgrass; NC, Raleigh; NC, Wilmington; ND, Dunseith; ND, Pembina; ND, Portal; NJ, Linden; NM, Albuquerque; NM, Columbus; NM, SantaTeresa; NV, Las Vegas; NY, Albany; NY, Alexandria Bay; NY, Brooklyn; NY, Buffalo; NY, Champlain, Rouses Point; NY, Jamaica; NY, Newburgh; OH, Ashtabula; OH, Cincinnati; OH, Cleveland; OH, Columbus; OH, Toledo; OH, Wilmington; OK, Oklahoma City; OR, Portland; PA, Allentown; PA, Harrisburg; PA, Philadelphia; PA, Pittsburgh; PA, Scranton; PR, Aguadilla; PR, Carolina; PR, Fajardo; PR, Mayaguez; PR, Ponce; RI, Warwick/Providence; SC, Charleston; TN, Memphis; TN, Nashville; TX, Austin; TX, Brownsville; TX, Corpus Christi; TX, Dallas; TX, Del Rio; TX, Eagle Pass; TX, El Paso; TX, Fabens; TX, Falcon; TX, Fort Hancock; TX, Freeport; TX, Galveston; TX, Hidalgo; TX, Humble; TX, Laredo; TX, Los Indios; TX, Pharr; TX, Port Arthur; TX, Presidio; TX, Progreso; TX, Rio Grande City; TX, Roma; TX, San Antonio; TX, Victoria; UT, Salt Lake City; VA, Dulles; VA, Norfolk; VI, St. Croix; VI, St. Thomas; VT, Berlin; WA, Blaine; WA, Oroville; WA, Port Angeles; WA, SeaTac; WA, Sumas; WI, Green Bay; WI, Milwaukee


HAND CARRY: No

Under the conditions specified, this permit authorizes the following:

Quantity of Soil per Shipment and Treatment

3 lbs or less: Sterilization will interfere with intended use - Your facility **MUST** be inspected and approved to receive this soil

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WARNING: Any alteration, forgery or unauthorized use of this Federal Form is subject to civil penalties of up to \$250,000 (7 U.S.C.s 7734(b)) or punishable by a fine of not more than \$10,000, or imprisonment of not more than 5 years, or both (18 U.S.C.s 1001)

SPECIAL INSTRUCTIONS TO INSPECTORS

See permit conditions below

INSTRUCTIONS TO DHS CBP INSPECTORS FOR IMPORTED SOIL SHIPMENTS ROUTED TO RECEIVING FACILITY:

For hand carry of soil, an official of CBP Agricultural Programs and Trade Liaison (APTL) would have been notified to document and facilitate the entry of the soil (See hand carry conditions below if stipulated).

Otherwise:

- 1) Confirm that the shipment under this USDA PPQ P330 permit is under bond to the point of entry.
- 2) Validate the permit in ePermits using the CBP search feature.
- 3) Confirm that the imported shipment has a valid USDA PPQ Form 550 Black/White label.
- 4) Confirm that the shipment is being routed directly to a USDA-APHIS-PPQ Inspected Facility authorized to receive soil by logging onto:
https://www.aphis.usda.gov/aphis/ourfocus/planthealth/import-information/permits/regulated-organism-and-soil-permits/sa_soil/facilities.
- 5) For questions or concerns, contact the USDA-APHIS-PPQ Permit Unit in Riverdale, MD, at 866-524-5421 and ask to speak with a compliance officer.

PERMIT GUIDANCE

- 1) Receipt or use of foreign isolates or samples from countries under sanctions requires specific permission from the U.S. Department of Treasury; please refer to <https://www.treasury.gov/resource-center/sanctions/Programs/Pages/Programs.aspx>
- 2) This permit does not authorize importation, interstate movement, possession, and/or use of strains of genetically engineered regulated materials/organisms (created by the use of recombinant DNA technology).
- 3) If an animal pathogen is identified in your shipment, to ensure appropriate safeguarding, please refer to http://www.aphis.usda.gov/import_export/animals/animal_import/animal_imports_anproducts.shtml
- 4) If a human pathogen is identified, please refer to the CDC Etiologic Agent Import Permit Program at <http://www.cdc.gov/od/eaipp/>
- 5) This permit does not fulfill the requirements of other federal or state regulatory authorities. Please contact the appropriate agencies, such as the U.S. Environmental Protection Agency, the U.S. Fish and Wildlife Service, the U.S. Food and Drug Administration, the Centers for Disease Control and Prevention, the APHIS Veterinary Services unit, the APHIS Biotechnology Regulatory Services, or your State's Department of Agriculture to ensure proper permitting.
- 6) If you are considering renewal of this permit, an application should be submitted at least 90 days prior to the expiration date of this permit to ensure continued coverage. Permits requiring containment facilities may take a longer period of time to process.

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PERMIT CONDITIONS

CHEMICAL/PHYSICAL ANALYSIS AND DNA/RNA EXTRACTION


USDA-APHIS issues this permit to Beth Shapiro, with University of California, Santa Cruz in Santa Cruz, CA. The permit authorizes the importation of soil from all foreign sources (except countries with sanctions or embargoes by U.S. State Department) only for chemical/physical analysis including the isolation and/or culture of Deoxyribonucleic Acid (DNA) or Ribonucleic Acid (RNA) in a controlled laboratory environment at the named facility on the permit.

1. If an accidental release into the environment occurs, notification must be made within one business day to APHIS, PPQ, 4700 River Rd., unit 133; Riverdale, MD 20737; 866-524-5421. A written report of the incident must be submitted identifying: (a) the name of the permit holder (responsible person), (b) the permit number, (c) the country or State of origin of the soil, (d) the nature of the release, and (e) measures already taken to contain, reduce or limit the effects of the accidentally released soil. Any plans prepared to contain, reduce or limit the effects of the accidentally released soil may be submitted as developed.

2.

- This permit is issued by the United States Department of Agriculture's Animal and Plant Health Inspection Service (APHIS). It conveys APHIS regulations and requirements for the material(s) listed on this permit. It does not reduce or eliminate your legal duty and responsibility to comply with all other applicable Federal and State regulatory requirements.
- The permit number or a copy of the permit must accompany the shipment.
- You must be an individual at least 18 years old, or legal entity such as partnership, corporation, association, or joint venture.
- You are legally responsible for complying with all permit requirements and permit conditions.
- The regulated material and shipping container(s) are subject to inspection by officials of Custom and Border Protection (CBP) and APHIS. CBP or APHIS officials may require the shipment to be treated, seized, re-exported, or destroyed (in part or whole). You will be responsible for expenses.
- If you violate any applicable laws associated with this permit, you may face substantial civil or criminal penalties. We may cancel all current permits and deny future permit applications.


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- Without prior notice and during reasonable hours, authorized Federal and State Regulators must be allowed to inspect the conditions associated with the regulated materials/organisms authorized under this permit.
3. All solid wood packing material (SWPM) accompanying the shipment must be in compliance with ISPM 15 treatment regulations and IPPC stamp requirements and enforcement. Noncompliant shipments will be treated, re-exported or destroyed at the consignee's expense.
 4. All operations must be consistent with information submitted in association with the above listed APHIS-PPQ inspected facility and subject to the conditions below.
 5. Soil must be shipped in a securely closed, watertight container (primary container, test tube, vial, etc.) which must be enclosed in a second, durable watertight container (secondary container).
 6. The shipment must be free from foreign matter or debris, plants and plant parts including noxious weeds and infestations by other macroorganisms such as insects, Cyst nematodes, mollusks and acari. Authorized material found to be commingled with unauthorized material will be subject to the same action (i.e. re-export, destruction) as unauthorized material.
 7. The imported article can be released without treatment at the port of entry to the permittee's address listed on the permit or label or to an authorized user only if the final destination is an approved facility listed at <https://web01.aphis.usda.gov/PPQ/AuthSoilLabs.nsf/web?openform>.
 8. The soil must not be used in field research or released into the environment before sterilization.
- The soil must not be used for isolation or culture of organisms, or for extracting and concentrating organisms from the soil.
- The soil must not be used as a growing medium.
9. For soil samples that originate in Hawaii and Puerto Rico, a copy of this permit and the samples must be presented to APHIS-PPQ for inspection and clearance prior to shipment. For soil samples that originate in the U.S. Virgin Islands, a copy of this permit and the samples must be presented to DHS-CBP for inspection and clearance prior to shipment. Following inspection, soil shipments from Hawaii, Puerto Rico, and the U.S. Virgin Islands are authorized to enter at any arrival point on the mainland U.S.
 10. Further distribution of soil is not allowed without a permit from the receiving lab. While in storage, all soil must be kept locked (e.g. in freezer, cabinet) in the approved lab with access limited to authorized personnel or they will be in a restricted access building that requires a key card entry and access is restricted to authorized personnel only; or it must be in locked room restricted to authorized personnel only.
 11. The soil must be handled as quarantined material until sterilized. This will include keeping the soil enclosed in containers when not in use and labeling all containers and/or storage areas:

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12. All packing material, media, substrate, and shipping containers must be sterilized or destroyed as approved and prescribed by the permit conditions after removing the soil.
13. All unconsumed soil, containers and effluent must be autoclaved, incinerated or properly sterilized by the permittee at the conclusion of the project as approved and prescribed by the permit conditions.
14. Any water residues (effluent) from the processing of soil samples must be treated by an approved sterilization procedure such as hydroclave or autoclave.
15. All soil residues must be dry-heat treated, incinerated, hydroclaved or autoclaved or any other procedure approved by the Deputy Administrator.

Dry Heat Treatment: use one of the following schedules:

- 110- 120.5 degrees C (230-249 F) for 16 hours
- 121-154 degrees C (250-309 F) for 2 hours
- 154.4 - 192.5 degrees C (310-379 F) for 30 minutes
- 193-220 degrees C (380-429 F) for 4 minutes
- 221-232 degrees C (430-450) for 2 minutes

Time starts when the entire sample reaches the required temperature, and a suitable temperature probe or currently calibrated thermometer must be used for verification.


Autoclaving Waste

- a. Waste must be autoclaved at 121 degrees Centigrade (250 degrees Fahrenheit) for a minimum of 30 minutes.
- b. Autoclave tape or other indicators must be placed on each load prior to treatment. The autoclave tape or other indicator on each container must be checked to verify color change before disposal.
- c. The autoclave must be professionally calibrated annually and a written record must be maintained.
- d. Every 3 months, you must use a commercially available biological indicator kit that uses bacterial spores (e.g. Geobacillus species) that are rendered unviable at 121 degrees C. You must follow the manufacturer's instructions. If any growth is observed, you must have the autoclave serviced and retested.

Incineration:

With the exception of metal and glass containers, all regulated and associated material must be reduced completely to ash at the end of the incineration cycle.

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Hydroclave soil and other material using the following conditions:

- a. Soil must be hydroclaved at 121 degrees Centigrade (250 degrees Fahrenheit) for a minimum of 30 minutes, or at 132 degrees Centigrade (267 degrees Fahrenheit) for a minimum of 15 minutes.
- b. Hydroclaves vary; therefore, the manufacturer's recommendations for hydroclave usage and maintenance must be followed, and these instructions must be readily available for review by PPQ.
- c. The hydroclave log must be completed by each user for each hydroclave cycle. All parameters must be noted as listed on the log for each hydroclave load.
- d. Observe the temperature sensor to ensure that the hydroclave maintains its required temperature. If the required temperature is not attained, you must contact the person responsible for maintaining the unit to initiate repairs. In the interim, waste must be treated either by an alternate treatment method, or transferred for treatment to another PPQ inspected facility, in accordance with conditions above.

16. Equipment and supplies used to conduct operations or that have contacted the soil must be decontaminated using one of the following methods:

- (a) Material can be soaked in a fresh bleach solution of 10 percent (1:10) for at least 30 minutes. (1:10 is a convention that means 1 in 10 or 1 part 9 parts = 10 parts total, which is a 10 percent solution)
- (b) Material can be soaked in 70 percent ethanol
- (c) Flamed with ethanol
- (d) Treated with quaternary ammonium compounds.

Note also that autoclaving, hydroclave, incineration, and dry heat sterilization are also acceptable sterilization/decontamination methods.

17. The Permit holder must comply with all the items listed below. In cases where notification is required, the notification must be made to the Pest Permit staff at 866-524-5421 or pest.permits@aphis.usda.gov within one business day of the event triggering a notification. You must also notify the PPQ State Plant Health Director in your State. Access the list of SPHDs at

https://www.aphis.usda.gov/aphis/ourfocus/planthealth/ppq-program-overview/ct_sphd.

- maintain a valid PPQ 330 permit so long as any portion of the regulated soil remains untreated,
- not assign or transfer this permit to other persons without prior APHIS PPQ authorization,

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- maintain an official permanent work assignment or affiliation at the address on this permit,
- notify the Pest Permit Staff of any change in the permit holder's work assignment, residence, or affiliation,
- notify the Pest Permit Staff of the receipt of unauthorized and/or misdirected shipments of regulated soil,
- adequately mitigate environmental impacts resulting from unauthorized or accidental release of the regulated soil,
- notify the Pest Permit Staff if the facility or equipment is damaged/destroyed or if you wish to decommission the facility,
- devitalize/sterilize all regulated soil prior to departure from the organization unless other arrangements are confirmed by the Pest Permit Staff,
- notify the Pest Permit Staff if you intend to let your permit expire and you will no longer receive or work with the regulated soil.

18. Upon issuance of this permit (i.e., a signed PPQ 330), you will need to request the PPQ Form 550 Black/White labels at least 5 days in advance of shipping date. If you applied online using ePermits, you may request the labels using the My Shipments/Labels feature. Otherwise, send your request to BlackWhiteGreenYellowlabelrequest@aphis.usda.gov. All email requests must come from the permit holder or appointee, if requested by the appointee the permit holder must be Cc'd on all requests. Specify the approved port as listed on the permit and the total number of labels needed in multiples of four. You may request additional labels the same way. We will send you the labels by email as a pdf.

However, the PPQ Form 550 Black/White label is not required on shipments of soil that originate in Hawaii, Puerto Rico, and the U.S. Virgin Islands.

A label must be attached with clear tape to the exterior of each package being imported under this permit. The labels will include detailed shipping instructions. You are responsible for instructing your shipper to carefully follow these instructions. You are responsible for each import shipping label issued under this permit.


Failure to do so may result in refused entry or destruction of your package.

Enclose the following supplemental information in each shipment:

- Permittee Name
- Permit number
- Label number

Underlying packaging/wrapping must carry the address, billing, and any other information required to direct the shipment to its final destination (i.e., the permit holder's address; N.B., USDA APHIS does not defray any additional shipping costs incurred for transiting the shipment through an inspection station as the initial US destination).

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19. Further distribution or movement of the regulated soil is not allowed without prior approval from the PPQ State Plant Health Director in your State. Access the list of SPHDs at <https://www.aphis.usda.gov/aphis/ourfocus/planthealth/ppq-program-overview/sphd>. For such movements, you must follow the packaging standards described in these permit conditions.

20. Certain domestic mainland soil is regulated under 7 CFR 301. This permit does NOT authorize the movement of such soil. For further information on the movement of domestic mainland soil visit:

https://www.aphis.usda.gov/aphis/ourfocus/planthealth/import-information/permits/regulated-organism-and-soil-permits/sa_soil/ct_domestic_soil.

END OF PERMIT CONDITIONS

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